



ORIGINAL ARTICLE

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Evaluation of the filiation team in terms of employee satisfaction and anxiety-depression scale in the pandemia process

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Abstract

In the effective fight against SARS Cov-2 cases, which have started to be seen in our country since March 2020, the filiation studies conducted for resource detection and contact isolation facilitated the control of the epidemic and increased the success in epidemic control in the early period. After the definitive case detection, contact detection and tracing by the filiation teams, and when necessary, contact persons are tested and asymptomatic individuals are followed up by family physicians for 14 days. In our study, we aimed to determine the anxiety-depression levels and employee satisfaction of the healthcare workers in the filiation team during the pandemic process. For the evaluation, the Health Anxiety Scale (short version), Hospital Anxiety and Depression Scale (HAD) and the Employee Satisfaction Scale organized by the Ministry of Health were used. Study data were collected using face-to-face interview technique. Our study was conducted by interviewing all of 25 healthcare professionals working in the filiation team. Employee satisfaction of participants was determined at a medium level during the pandemic. In our study, it was seen that 24% of the participants and 40% of the participants were at risk for depression, and the risk of anxiety in women was higher than in men ($p < 0.05$). No significant relationship was found between both genders in the risk of depression ($p > 0.05$). In our study, the risk of anxiety was found to be higher in women than in men. We think that women's high sensitivity to stress factors increase the risk. There was no significant risk of depression in both genders, but we think that the fact that the study was conducted in the early period. This effect was only reflected in the results as an increase in anxiety; long-term effects need to be observed. Our study is significant because it is the first study about the questionnaire widely used by the Ministry of Health and in terms of evaluating employee satisfaction, it has provided a methodologically unique perspective to the literature by reducing the data collected from scoring to four levels for each sub-category. Employee satisfaction is moderate and is linked to experience about filiation management and assessment done early in the pandemic. The increased burden of the filiation team, as well as the continuous risk of getting the disease, may lower employee satisfaction over the lengthy pandemic phase. By improving moderate employee happiness, efficiency and disease management can be improved. Multicenter studies with a high number of participants are required in this regard.

Keywords: SARS Cov-2, filiation team, employee satisfaction, anxiety and depression

Introduction

While the SARS Cov-2 pandemic affects the whole world negatively in many ways, it has been observed in recent studies that the psychological effects on humans are deeper than expected. The uncertainty of the epidemic and trying to adapt to the ever-changing dynamics played a role in deepening these effects.

The world has faced a pandemic again a hundred years later, and is still living a period in which the results and long-term effects cannot be predicted. It has been clearly observed that the SARS epidemic has had profound effects as an experience that can take

place as a lesson in our most recent and memories. In a study conducted after the SARS epidemic, depression and anxiety scores were found to be high in addition to post-traumatic stress scores in the psychological evaluations of healthcare workers in the period 1 year after the epidemic in high-risk working conditions [1]. In countries where the SARS epidemic was previously experienced, especially the compliance with masks and other measures is higher, as well as the behavioral changes that this pandemic teaches and brings to us will over time. With both positive and bad aspects, the long-term or permanent consequences of this pandemic on humans will be noticed over time.

Health administrations, which have to deal with this unprecedented epidemic in every aspect, have started their studies to find solutions for the needs and problems of each region by establishing Provincial Hygiene Committees with the decision taken on March 28, 2020 in each province. Refik Saydam Hıfzıssıhha Müessesesi

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was established on May 27, 1928. Filiation teams formed within these committees played an active role in combating diseases such as, brucellosis and tuberculosis. In our country, where many epidemics and infectious diseases are experienced, these teams are successfully and devoted to manage the field and filiation studies thanks to their experience. The arrangements established in our country's present working conditions slightly alleviated their workload, but they did not prevent them from developing major psychological disorders as a result of continuing to work in these challenging settings [2,3,4]. Working in a psychologically safe environment will not only increase the self-confidence of employees, but also reduce the psychiatric disorders and symptoms that may arise [5]. Employee satisfaction; It is the most important factor that ensures that employees in an institution or organization keep their morale and motivation high. The satisfaction of healthcare professionals has become more important as it affects the success of fighting diseases. An important indicator of quality in health is the satisfaction of healthcare workers of institutions that provide health services [6].

Healthcare workers are among the groups in which SARS Cov-2 is detected most frequently. COVID-19 cases were reported as 22.073 people in healthcare workers on April 8, 2020, and it was stated that they probably did not reflect the real numbers, as regular information could not be provided to WHO on this issue [7]. In this process, healthcare professionals experience serious stress while dealing with the epidemic with self-sacrifice by taking a greater risk than other segments of the society. In addition to the anxiety of getting sick, health personnel may experience anxiety due to reasons such as the availability of personal protective equipment, work-related stress, anxiety of finding inadequate measures in working conditions, stigma, quarantine, and the psychological effect of interpersonal distance [8].

In studies in the literature, the frequency of disease anxiety and the frequency of anxiety and depression were found to be significantly higher [2-4]. In studies conducted in the early stages of the pandemic in Wuhan, China, it was reported that healthcare workers accounted for 29% of all infected cases and they have serious concerns in studies about the disease anxiety they experience in these variable and difficult conditions; It has been found that they experience stress, anxiety, and depression symptoms as well as anger and sleep disorders [9,10]. Given the possibility that comparable outcomes could occur in our country as a result of the pandemic, we sought to assess the anxiety-depression scale in healthcare personnel, as well as employee satisfaction as a result of the changes in working conditions.

Materials and Methods

Research design

This quantitative study was designed to evaluate the psychological exposure to the pandemic and their perspective on working conditions among the healthcare professionals working in the filiation team in Malatya. Ethics committee approval was obtained for the study from Inonu University Faculty of Medicine Clinical Research Ethics Committee and Ministry of Health General Directorate of Health Services, dated 07.10.2020 and numbered 2020/149.

For the evaluation, the Employee Satisfaction Scale and the Health Anxiety Scale (HAS -short version) Hospital Anxiety and Depression Scale (HAD), organized by the Ministry of Health, were used. Study data were collected using face-to-face interview technique.

Ministry of Health Employee Satisfaction Survey (ESS); "Quality Standards in Health -Survey Implementation Guide" is a 21-question questionnaire prepared by the Department of Quality in Health, Accreditation and Employee Rights to be applied to ministry staff as of 10.03.2019 [11]. ESS consists of sociodemographic data and 21 questions aimed at revealing people's satisfaction or dissatisfaction with the institution. The lower limit is 21, depending on the score obtained. 42 points worth and below not satisfied 42-63 poorly satisfied 63-84 moderately satisfied, 84 and above are considered very satisfied and high scores are interpreted in favor of satisfaction.

HAS; validity and reliability studies were conducted for our country in 2013. It is a four-point Likert type, planned to evaluate patients' concerns about their health [12]. Its evaluation consists of 18 items and its scoring is between 0-3. A minimum of 0 and a maximum of 54 points can be obtained on the scale. Higher scores on the scale indicate high health anxiety. The first 14 questions are about hypersensitivity to somatic symptoms and the dimension of anxiety, while the last 4 questions are about the negative consequences of the disease.

HAD; Its validity and reliability studies were conducted in 1997 and it is a scale consisting of 14 items. 7 of these items measure anxiety symptoms and the other 7 measure depression symptoms [13]. It has been deemed convenient in that it is practical and does not limit employee time. In the scale, the limit score for anxiety symptoms was 10 and for depression symptoms as 7. It is a scale used to make a risk rather than make a diagnosis. Test the HAD scale in order to determine the levels of anxiety and depression in the hospital [14].

Participants

Our study was conducted by interviewing all of 25 healthcare professionals working in the health services and auxiliary health services class in Malatya province, which directly deals with COVID-19 patients between 15 March and 25 July 2020.

Statistical Evaluation

Data were summarized as mean \pm standard deviation, median (min-max) and number (percentage). Conformity to normal distribution was made using the Shapiro-Wilk test. In statistical analysis, t test, Mann-Whitney U test, Pearson Chi-Square test, Yates Corrected Chi-Square test, One-way ANOVA and Kruskal Wallis test were used where appropriate. A value of $p < 0.05$ was considered statistically significant. IBM SPSS Statistics 25.0 program was used for analysis.

Results

TIIn our study, the average age of the endured was 37.5 ± 8.2 , the average age of men was 34.3 ± 8.3 , and the average age of women was 40.5 ± 7.3 . The gender distribution of the sample; 48% are men and 52% are women. Education level; university

84% (n:21), high school graduate 12% (n:3), doctorate 4% (n:1). The sociodemographic characteristics of the study group are summarized in Table 1.

According to our ESS results, the average score of the questionnaire was 70.12±13.2. ESS sub-headings were evaluated separately, and the average score of ensuring physical competence and security was 15.48±4.6; management satisfaction 33.92±6.8; evaluation of violence and mobbing 13.96±4.1; The average of evaluating the place of work in terms of service provision and work environment was obtained as 7.24±1.9, since each category consists of different numbers of questions, limit scores were determined and accordingly, the level of satisfaction in all categories was found to be moderate [Table 2]. There is no significant difference in employee feedback assessment in terms of age and gender ($p>0.05$). Averages of ESS by age are included in Table 3.

In the study, the mean HAS was determined as 14.52±6.15. There was no significant relationship between the participants' mean age and gender assessment in terms of health anxiety ($p>0.05$) [Table 4.a and Table 4.b].

In the evaluation of the sample with the HAD scale, it was observed that 24% was under risk in terms of anxiety and 40% depression. The mean risk of the patients was determined as 8.16±3.65 (lowest=0, highest=15) for anxiety and 7.32±2.71 (lowest=3, highest=14) for depression. A statistically significant relationship was found between male and female patients participating in the study and their anxiety state ($p<0.05$) [Table 5].

The relationship between the ESS and the HAD subunits anxiety, depression, and the HAS was not significant ($p>0.05$).

Table 1. Sociodemographic Features

VARIABLE	GROUP	N	%
GENDER	Men	12	48
	Women	13	52
AGE RANGE	< 20 age	0	0
	20-29 age	6	24
	30-39 age	9	36
	40-49 age	10	40
	50-59 age	0	0
	>60 age	0	0
EDUCATION	Post Graduate	3	12
	University	21	84
	Doctorate	1	4
PROFESSION	Healthcare Class	14	56
	Auxiliary Health Services Class	11	44
WORKING DURATION	1-5 year	7	28
	5-15 year	9	36
	15-25 year	7	28
	> 25 year	2	8

Table 2. Employee Satisfaction Survey Average and Standard Deviation Values

Employee Satisfaction Survey Sub-Categories	Lower / Upper Limit	Mean ± Standard Deviation
Working environment and conditions	5/25	15.48±4.6
Satisfaction with management	10/50	33.92±6.8
Physical and verbal violence	4/20	13.96±4.1
As a Workplace / Treatment Center	2/10	7.24±1.9
Total	21/105	70.12±13.2

Table 3. In Terms of Age Groups Employee Satisfaction Survey

Employee Satisfaction Survey Sub-Category Scores	Age Groups	Mean ± Standard Deviation	p value
Working environment and conditions	20-29 age	16±5	0.7
	30-39 age	16±6	
	40-49 age	15±4	
Satisfaction with management	20-29 age	32±9	0.68
	30-39 age	35±8	
	40-49 age	34±5	
Physical and verbal violence	20-29 age	14±3	0.93
	30-39 age	14±5	
	40-49 age	14±4	
As a Workplace / Treatment Center	20-29 age	8 (5-9)	0.75
	30-39 age	8 (5-9)	
	40-49 age	8 (3-10)	

Table 4.a. Health Anxiety Scale Values in Terms of Gender Groups

HAS Test Scores	Gender	Mean ± Standard Deviation	p value
Total	Men	13.67±4.31	0.51
	Women	15.31±7.57	
Sensitivity and Anxiety	Men	42.9±23.28	0.47
	Women	11.85±5.99	
Evaluation of the Negative Consequences of the Disease	Men	3 (0-6)	0.82
	Women	3 (0-7)	

Table 4.b. Health Anxiety Scale by Age Groups

HAS Test Scores	Age Groups	Mean ± Standard Deviation	p value
Total	20-29 age	13±4	0.61
	30-39 age	16±5	
	40-49 age	14±8	
Sensitivity and Anxiety	20-29 age	10±4	0.58
	30-39 age	12±4	
	40-49 age	11±6	
		Medyan (Min-Max)	p value
Evaluation of the Negative Consequences of the Disease	20-29 age	4 (3-4)	0.2
	30-39 age	3 (0-7)	
	40-49 age	3 (0-6)	

Table 5. Relationship Between Gender Groups and Anxiety Risk

Variable	Category	Statistics	Risk of Anxiety		p value
			No	Yes	
Gender	Men	N	8	4	0.028
		%	66.66	33.33	
	Women	N	3	10	
		%	23.1	76.9	

Discussion

This study was designed to evaluate the satisfaction of the working conditions, anxiety-depression levels, and disease anxiety levels of the radiation team dealing directly with SARS Cov-2 patients.

In studies in the literature on employee satisfaction, the results and subcategories were evaluated in terms of percentage [15,16]. In our study, the results obtained from scoring are reduced to 4 levels for each sub-category. Studies have reported that categorization increases the validity and reliability of the scale [17]. Studies conducted in our country and abroad have also reported that employee satisfaction is at a medium level [16,18,19]. In our study, medium level employee satisfaction was determined in general satisfaction and sub-categories. Employee satisfaction rates in the literature are similar to our study. Despite this process, high employee satisfaction was associated with the quality working conditions of our participants in the sample group working in the provincial and district health directorates but it should be taken into account that the prolongation of the process may cause exhaustion in healthcare workers. However, we think that doing this assessment during the early stages of the pandemic may have influenced the outcome and continuing under difficult conditions can change the outcome.

It has been reported in the literature that health anxiety and many psychiatric disorders are observed with an increased rate in healthcare workers [8,20]. Ekiz T et al. In his study, health anxiety levels were found to be moderately affected, and this level of exposure was found in parallel with the perception of pandemic

control [21]. Ünalın and Karaođlu found low levels of health anxiety in their work with different groups [22,23]. It has been shown that emergency workers in Pakistan apply and recommend certain methods to cope with anxiety and depression. [24]. In our study, the mean health anxiety scale was also low. We thought that the averages we expected to be higher due to the effects of the pandemic were due to healthcare professionals developing ways of dealing with the epidemic for almost half a year. In the studies conducted, the level of health anxiety varies [25]. Different sample groups of this situation, religion, ethnicity and lifestyle etc. we think it is caused by the variables.

In a study based on meta-analysis, including 41 psychological evaluations, 20 of which were carried out by healthcare workers, increased depressive symptoms, anxiety and disturbances in sleep quality were found among healthcare workers. In China a study conducted with 1563 healthcare workers during the pandemic, anxiety was 44.7%; depression was detected at a rate of 50.7% [26]. In our study, it was observed that 24% of the filation team were under anxiety and 40% were under depression. It is striking that the risk of anxiety and depression is relatively low in our study. We think that this difference with the literature is due to the evaluation of healthcare workers in the later stages of the pandemic, social differences and the small sample size. Since healthcare workers are exposed to a higher risk during the pandemic, psychiatric symptoms were evaluated as high, and this risk was found to be increased in female gender and frontline workers [27]. No significant difference was found in terms of gender in anxiety and depression levels by Zhang et al. [28]. In our study, the frequency of anxiety was higher in women. This result is consistent with studies showing that women have higher levels of anxiety and risk perception.

Conclusion

In our study, the risk of anxiety was found to be higher in women than in men. We think that women's high sensitivity to stress factors, responsibilities at home or the role of motherhood, along with the anxiety of carrying the disease risk to home life, increase the risk. There was no significant risk of depression in the early period in both genders, but we think that the fact that the study was conducted when the number of cases was relatively under control and that the trauma was evaluated before it became chronic may have an impact on the results we obtained. This effect was only reflected in the results as an increase in anxiety; long-term effects need to be observed.

Employee satisfaction is moderate, and it is linked to management's experience in providing proper counsel to employees in terms of labor division and working order in our country, where filiation services are actively given. The increased burden of the filiation team, as well as the continuous risk of getting the disease, may lower employee satisfaction over the lengthy pandemic phase. By improving moderate employee happiness, efficiency and disease management can be improved. There are many studies evaluating patient satisfaction in health institutions, but studies on employee satisfaction are not sufficient. Our study is significant because it is the first study about the questionnaire widely used by the Ministry of Health and in terms of evaluating employee satisfaction, it has provided a methodologically unique perspective to the literature by reducing the data collected from scoring to four levels for each

sub-category.

Despite the small size of our sample, we attempted to improve the accuracy of our assessment by using the face-to-face interview technique. Multi-center studies with large participants are needed on this subject.

We believe that the improvements to be made in the work environment of the healthcare professionals and the psychological support of the employees will alleviate the psychological effects of the pandemic that we anticipate will last.

Limitations and Delimitations

The small number of participants is a limitation of our study. The study was carried out at a time when the number of teams was reduced, as it was thought that the pandemic process was partially under control thanks to intense measures. Our study's power is enhanced by the fact that it was conducted using a face-to-face interview technique.

Conflict of interests

The authors declare that there is no conflict of interest in the study.

Financial Disclosure

The authors declare that they have received no financial support for the study.

Ethical approval

Approval for the study was obtained from İnönü University Faculty of Medicine Clinical Research Ethics Committee and Ministry of Health General Directorate of Health Services.

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